MIS 301 Statistical Analysis for Business
Summer 2014, Sections 1 and 2 (Online)

First Summer Session

San Diego State University
College of Business Administration
Department of Management Information Systems

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Email: breinig@mail.sdsu.edu Blackboard: blackboard.sdsu.edu
Time: Online Office Hours: W, 1:30pm to 3:00pm

Overview: The objective of this course is for students to achieve an understanding of fundamental statistical techniques and how they are applied to decision making and the scientific method. Greater emphasis is placed on the application and interpretation, as opposed to the mathematical derivation, of the techniques covered. The content of this course is essential for any student pursuing an undergraduate business major and any person involved in organizational decision making. This course is intended to help satisfy the Association to Advance Collegiate Schools of Business (AACSB) curriculum criterion for management specific knowledge in the area of “Statistical data analysis and management science as they support decision-making processes throughout an organization.”

Prerequisites: Students are required to have completed Mathematics 120; Economics 201 or Statistics 119.

Learning Objectives:
Upon completing this course, students should be able to…
- Use data from a sample to make inferences about a population.
- Apply probability theory in decision making situations.
- Formulate hypotheses for decision making and research.
- Analyze data using appropriate statistical techniques.
- Interpret the results of statistical analysis

Accessing Course Materials: Course materials will be made available via the SDSU blackboard website (blackboard.sdsu.edu). Please check the website regularly for information about assignments, quizzes, lectures, and exams.

Notes for Online Course:
Technical Requirements: You will need a high speed internet connection with sufficient bandwidth to watch video lectures and reliable and stable enough to complete online quizzes. You will also need Microsoft Excel (preferably 2010 or 2013) with the data analysis toolpak installed. I do not believe this toolpak is supported in the Macintosh version of Excel so you will need a Windows environment. Please visit the following website for instructions on installing the Analysis Toolpak for Excel 2010: http://technet.microsoft.com/en-us/magazine/ff969363.aspx.

It is the student’s responsibility to acquire the software and reliable internet connection. The SDSU Instructional Technology Services (ITS) office advises that the best browser for Blackboard is Firefox. To download Firefox for free, click on the following link: http://www.mozilla.com/en-US/.

Personal Aptitude Requirements: I have had the pleasure of teaching statistics to thousands of students over the years (I first taught the subject in 1999). In my experience, statistics proves to be especially challenging to some students and can be difficult to learn independently. This class will consist of asynchronous video lectures and self-paced learning from the textbook. It will not have the rich back and forth interaction that I enjoy in my regular classes. If you feel that you need a more personalized instruction for this topic then I encourage you to enroll in a regular section.
**Grading**: Grades are determined by your performance on case assignments, quizzes, and exams. There are no make-ups for course grading activities so students should be available to take a quiz or exam, or complete an assignment, on any day during the six week course.

The following weights are used to calculate your course grades:

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<tbody>
<tr>
<td>Case Assignments:</td>
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<tr>
<td>Online Quizzes:</td>
<td>10%</td>
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<tr>
<td>Midterm 1:</td>
<td>25%</td>
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<tr>
<td>Midterm 2:</td>
<td>25%</td>
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<tr>
<td>Final Exam:</td>
<td>30%</td>
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Grades are assigned using the following distribution:

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<tr>
<td>92-100</td>
<td>A</td>
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<td>90-92</td>
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<td>88-90</td>
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<td>82-88</td>
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<td>80-82</td>
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<td>78-80</td>
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<td>72-78</td>
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<td>70-72</td>
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<td>68-70</td>
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<td>62-68</td>
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<td>58-62</td>
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<td>0-58</td>
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The instructor may curve the grading scale slightly depending on class performance.

**Academic Dishonesty**: Please familiarize yourself with SDSU’s academic dishonesty policy. Academic dishonesty includes cheating and plagiarism. As a result of an Executive Order issued by the Office of the Chancellor, instructors are required to report any incident of academic dishonesty. My practice has been to record an F for the grade if a student is caught cheating and I do report this as required. Cheating is defined as “…the act of obtaining or attempting to obtain credit for academic work by the use of dishonest, deceptive, or fraudulent means.” This definition, along with specific examples, is available at the following Center for Student Rights and Responsibilities website: http://csrr.sdsu.edu/cheating-plagiarism.html.
# Tentative Course Outline*

<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Lecture Topics</th>
<th>Chapter(s)</th>
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<tbody>
<tr>
<td>1</td>
<td>5/21 – 5/23</td>
<td>Data and Statistics, Descriptive Statistics</td>
<td>1, 2, 3</td>
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<td><em>Last day to Drop: May 30, 2014</em></td>
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<tr>
<td>2</td>
<td>5/26 – 5/30</td>
<td>Introduction to Probability Theory, Discrete Probability Distributions</td>
<td>4, 5</td>
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<td><em>Campus Closed on May 26 for Memorial Day</em></td>
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<td>3</td>
<td>6/2 – 6/6</td>
<td>Continuous Probability Distributions, Sampling and Sampling Distributions</td>
<td>6, 7</td>
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<td><strong>Midterm 1 on Wednesday June 4.</strong></td>
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<td>4</td>
<td>6/9 – 6/13</td>
<td>Interval Estimation, Hypothesis Testing, Statistical Inference about Means and Proportions with Two Populations</td>
<td>8, 9, 10</td>
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<tr>
<td>5</td>
<td>6/16 – 6/20</td>
<td>Inferences about Population Variances, Tests of Goodness of Fit and Independence</td>
<td>11, 12</td>
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<td><strong>Midterm 2 on Wednesday June 18</strong></td>
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<td>6</td>
<td>6/23 – 6/27</td>
<td>Experimental Design and Analysis of Variance, Simple Linear Regression</td>
<td>13, 14</td>
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<td>7</td>
<td>6/30 – 7/2</td>
<td>Multiple Regression,</td>
<td>15</td>
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<td><strong>Final Exam on Wednesday July 2.</strong></td>
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*The week-to-week schedule may vary depending on circumstances. Quiz and Case dates will be specified on the website but assessments will typically take place on Mondays, Wednesdays, and Fridays. Exams will be held on Wednesdays. The final exam must be held on Wednesday July 2 and so to space the exams evenly I made the midterms on Wednesday as well.*